

THE CAMPAIGN IN
NORTH-WEST EUROPE
JUNE 1944 - MAY 1945

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Foreword

1944

An Anthology of Amphibious Invasions

The sheer scale of the invasion of Normandy—Operation *Neptune*—which was the essential precursor of the liberation of north-west Europe (Operation *Overlord*), has tended to overshadow the significance of two other important amphibious assaults of that year, the invasion of the South of France (Operation *Dragoon*) in August 1944 and the seizure of the island of Walcheren (Operation *Infatuate*) in November. This combined volume of official Admiralty “Battle Summaries” not only sets the amphibious contribution in the context of the Allied success but, in the third section, describes the little-known naval activities following the break-out from Normandy and supporting the subsequent advance to, and even over, the Rhine.

The “Battle Summaries” were written relatively soon after the events which they describe (the last was produced in 1952) and are based on official documentary material which did not become available to the public at large until 1968. Like the other works in the Naval Staff Histories series, they were intended for professional use, for planners and commanders who might have to conceive and undertake similar operations, and for Staff Course students, to broaden their education and to lead them on to the possibilities offered by the deeper study of original documents. The text in each is supplemented by appendices giving orders of battle, commanders and large quantities of statistical information and the accompanying maps frequently have more detail than is shown in those prepared for books written for commercial publication. In due course, the volumes became basic reference sources for the authors of the Cabinet Office series of Official Histories of the Second World War.

The policy of the Naval Historical Branch was that the Staff Histories should be detailed narrative accounts, not analyses, and that they should concentrate primarily on maritime aspects, describing air and military plans and activity only in as far as they affected naval operations. The accounts may seem to more sophisticated modern historians to be curiously naïve, for although the operations were frequently undertaken against a background of simmering (and sometimes raging) politico-military controversy, the latter was rigorously eschewed. In exchange,

the reader received, and still receives, a wealth of factual information, set in its correct strategic and tactical context, written by naval officers who were versed in the black art of naval operations but were capable of synthesising the vast quantity of source material to serve up the essentials without resorting to jargon. Inevitably, the three authors (Commander L J Pitcairn-Jones, "Operation *Neptune*", Commander W E H Westall, "Operation *Dragoon*" and Lieutenant Commander J H Lloyd-Owen, "The Campaign in North-West Europe") made minor errors and those are corrected in an errata slip which accompanies this edition.

The combination of straightforward, readable narrative and close attention to detail by authors who understood thoroughly their topics, renders this "amphibious anthology" of real value as a research tool for wider use than has previously been possible.

David Brown

This England never did, nor never shall,
Lie at the proud foot of a conqueror,
But when it first did help to wound itself.
Now these her princes are come home again,
Come the three corners of the world in arms,
And we shall shock them. Nought shall make us rue,
If England to itself do rest but true.

Shakespeare, *King John*, Act V, Scene 7

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SOURCES

Battle Summary No. 39 Operation Neptune

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M 08095/44	O.R.P. <i>Dragon</i> , R. of P., 7th-8th July 1944
M 08247/44	Report of loss of H.M.S. <i>Pylades</i> , 8th July 1944
M 057817/44	Report on Human Torpedo and Explosive Motor Boat Attack, British Assault Area, 3rd August 1944
M 058272/44	Report on Explosive Motor Boat Attack, British Assault Area, 9th August 1944
M 010524/44	Report of Coastal Force Action, 25th-26th August 1944
M 010625/44	R. of P. Naval 'P' Parties, Cherbourg, Caen, Dieppe and Le Havre
M 09955/44	German Evacuation of Le Havre by Sea
M 013297/44	Operation Infatuate I and II (Walcheren) R. of P., 25th October to 8th November 1944
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Operation Neptune. Commander Kenneth Edwards

Utah Beach to Cherbourg, 1944. American Forces in Action Series

War as I Knew It. General George S. Patton, Jr.

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Canada's Battle in Normandy. Colonel C. P. Stacey

Crusade in Europe. General Eisenhower

The Rise and Fall of the German Air Force. Issued by the Air Ministry (A.C.A.S.[I])

THIS Battle Summary deals with events during the Campaign in North West Europe between 24th June 1944, when Operation Neptune ended, and VE-Day, 8th May 1945. Although it is principally concerned with the naval operations of this campaign it has been found essential to include detailed accounts of many of the military and air operations in order to give a clear picture of the campaign as a whole. It describes these operations *as they actually happened* and is in no way concerned with purely politico-military controversy.

CHAPTER I

THE BAY OF THE SEINE

24th JUNE—12th SEPTEMBER 1944

1. The beginning of the end

Speaking at the Guildhall on the night of 10th November 1942, two days after the invasion of North Africa,¹ Mr. Winston Churchill, the Prime Minister, said: 'Now this is not the end, it is not even the beginning of the end, but it is perhaps the end of the beginning.' And thus it proved, for it may fairly be said that the beginning of the end came truly some nineteen months later, when on 6th June 1944 a great combined British and United States force crossed the English Channel and successfully invaded the plains of Normandy,² whence the first William had set forth in the reverse direction to invade England some 878 years before.³ But though the invasion of Normandy may fairly be described as the beginning of the end, it proved to be no more than that, for much remained to be done before hostilities actually ended in Europe on 7th May 1945. It is with the various and varied naval events off the north-west coast of Europe from Cherbourg and the Bay of the Seine to Antwerp and the Schelde between June 1944 and May 1945 that this Battle Summary is chiefly concerned.

2. Eastern flank

The Bay of the Seine lies between Pointe de Barfleur and Cap de la Hève some fifty-three miles eastward. Its western side is bounded by the Cotentin peninsula. Midway along the northern coast of the peninsula, between Cap de la Hague and Pointe de Barfleur, some twenty-seven miles eastward, lies the great French naval base of Cherbourg.

When the victorious British and American armies landed in Normandy on 6th June 1944, the naval plans provided for an Allied assault area bounded on the north by the parallel of lat. 49° 40' N., and on the west, south and east by the shores of the Bay of the Seine. This area was divided into two Task Force areas, the boundary between them running from the root of the Port-en-Bessin western breakwater in an 025° direction to the meridian of 0° 40' W., and thence along this meridian to lat. 49° 40' N.

The Western, or American, Task Force area was divided into two assault force areas—'Utah', covering the east coast of the Cotentin peninsula to the River Vire, and 'Omaha' thence to the British area. The Eastern, or British, area was divided into three assault force areas—'Gold', from Port-en-Bessin to Ver; 'Juno' from Ver to St. Aubin, one mile west of Langrune, and 'Sword' from St. Aubin to Ouistreham. The assault force areas were sub-divided into lettered sectors, the beaches in each sector being known as 'Red', 'Green' or 'White'.⁴

¹ Operation Torch, B.R. 1736(31).

² C.B. 3081(31).

³ William, Duke of Normandy, sailed from St. Valery-sur-Somme near Boulogne, on 27th September 1066, and landed in Pevensey Bay, Sussex.

⁴ C.B. 3081(31), p. 19, and Plan 1.

The defence of the anchorages off the beaches presented an entirely new problem. The number of vessels employed in Operation Neptune was much greater than in any previous landing operation, the beaches were more concentrated, and the Allies possessed almost overwhelming air superiority.

Attacks by aircraft, E-boats and W-boats at night or in low visibility offered the main threat. Attacks by U-boats and other craft were unlikely owing to the enemy's own minefields and the Allies' naval superiority. A static method of defence was therefore adopted, ruling out the risk of collisions and reducing wear and tear on ships and machinery to a minimum.

Night defence measures varied but under normal procedure the Naval Commander, Eastern Task Force, Rear-Admiral Sir Philip Vian, controlled the defence of the whole area from seaward attack. The assault force commanders dealt with enemy forces which penetrated into their areas and also with landward and enemy air attacks. This scheme aimed primarily at guarding against attacks from the north-eastward—including the estuary of the Seine—known as 'Tunny' area, and from the northward as area 'Pike'.¹

Captain A. F. Pugsley, an officer known as Captain (Patrols), was responsible, under Admiral Vian, for the organisation of seaward patrols—other than coastal forces—the organisation and efficiency of night-defence lines, and for the operation of defence forces in Pike area.

Minesweepers were anchored five cables apart in a defence line six miles from the shore and parallel to it. At the end of June this line was continued down the vulnerable eastern flank by another line—of Landing Craft Flak and Landing Craft Gun anchored one cable apart—known as the 'Trout Line'.² On these lines lay the responsibility of preventing the enemy from entering the British assault area.

Two or three M.T.B. divisions were stationed—stopped but underway—north-eastward of the north-eastern portion of the defence line. Two or three sub-divisions of destroyers patrolled to the north of the western part of Tunny area and sometimes to the northward of the M.T.Bs.

Captain (Patrols) in a frigate or flotilla leader, accompanied sometimes by destroyers, lay stopped—but underway—close inside the defence line. His force provided reinforcements if necessary. Anchored minesweepers acted as minespotter in suitable positions, originally in the approach channels, but subsequently in the lateral channel which was established in the area.

The control of night defence was at first centred in the cruiser *Scylla*, which anchored at night in Sword area, but when she was mined on the night of 23rd–24th June it passed to Captain Pugsley, the Captain (Patrols), in the frigate *Retalick*.

Day defence measures were organised by the Captain (Patrols). They included a patrol to seaward by corvettes, trawlers, and sometimes destroyers. Guard and duty destroyers were stationed, and kept at short notice, in each assault area. At dusk and dawn smoke screens were laid by landing craft³ and motor launches.⁴

¹ Plan 1.

² Section 3.

³ L.C.P.(L).

⁴ *Battle Summary* No. 39, pp. 108–109.

3. Support Squadron Eastern Flank

From 6th to 24th June the operational control of the landing beaches in the British assault area was undertaken by the Naval Force commanders afloat operating through the naval officers-in-charge ashore. The administration of the area was carried out by the staff of Rear-Admiral Sir Philip Vian, the N.C.E.T.F., which was also established ashore.

On 24th June Rear-Admiral J. W. Rivett-Carnac established his headquarters ashore, hoisting his flag in the Maison Clos Charlotte at Courseulles as Flag Officer, British Assault Area, in succession to Admiral Vian.¹

It had been intended that Admiral Rivett-Carnac's staff which consisted of some 140 officers and 800 ratings taken over from Sir Philip Vian should be accommodated in the excellent Château Courseulles but unfortunately this building had been demolished during the assault. All the officers, except the Admiral and his personal staff, and most of the ratings were therefore housed under canvas. Some 150 ratings occupied a building which had been used by the Germans as a barracks and the operations staff took possession of the late German War Room in which was found a scale relief model of the whole area.

The withdrawal of Admiral Vian marked the official end of Operation Neptune. The build-up over the Normandy beaches went on but Neptune became merged in the larger operation—Overlord—of which it had been the naval preliminary.²

In spite of the fierce northerly gale which had swept the waters of the English Channel between 19th and 21st June and wrecked the Mulberry harbour at St. Laurent³ 714,008 men, 111,571 vehicles and 259,724 tons of stores had been landed over the Normandy beaches by the evening of 24th June. Although the beach capacities had proved adequate little margin remained and the early capture of a port such as Cherbourg was of major importance.

Fortunately, by this time the whole eastern coast of the Cotentin peninsula had passed safely into American hands and the capture of Cherbourg was imminent. Thus little threat remained to the western or American anchorages though the possibility of attacks from seaward continued, for U-boats were still operating from Brest.

In vivid contrast the eastern or British anchorages were extremely vulnerable, for the enemy was still in force east of the River Orne.⁴ Le Havre, too, provided a continuous threat, for unorthodox weapons, such as midget submarines and one-man torpedoes, could operate from there against them.

The protection of the eastern anchorages, therefore, called for vigorous measures and it was decided to stiffen the defences of this area. For this purpose a new force, called the 'Support Squadron Eastern Flank', consisting of ships from all three British assault forces no longer required further westward, was instituted on 28th June.⁵ It operated under the

¹ Admiral Rivett-Carnac assumed command when Admiral Vian left the area on 30th June.

² *Battle Summary* No. 39, p. 152.

³ *Battle Summary* No. 39, p. 140.

⁴ Plan 1.

⁵ R.O. Case 8796, p. 9.

command of Commander K. A. Sellar with the double task of protecting the anchorages and bombarding the enemy forces east of the Orne. The new Support Squadron consisted of the gunboat *Locust*, as headquarters ship, and seventy-six other craft, mostly L.C.Gs., L.C.Fs. and L.C.Ss.,¹ manned by a total of 240 officers and 3,200 men.² Their story is one of great courage in the face of unknown perils and severe hardships, for they continued to live and operate in the heavily mined area off the beaches long after the other ships had been withdrawn on account of enemy shelling and mining. Although they suffered losses they successfully beat off the four major night attacks made on them and maintained constant vigilance over a long period.

Night after night they established a double line of patrols running some six miles north from the vicinity of Ouistreham and thence for two miles in a north-westerly direction as far as the area in which Captain Pugsley's destroyer patrols operated. Their main patrol line consisted of L.C.Gs. and L.C.Fs. anchored, as far as possible, alternately $3\frac{1}{2}$ cables apart. This static system entailed certain obvious disadvantages but was necessary on account of the constant danger of mines and the poor navigational qualities of these craft.

The second, or mobile, line consisted of one motor launch to every two craft in the static line, secured, when all was quiet, to one of the anchored craft. Immediately on alarm they cast off and patrolled the gaps between the anchored craft ready to chase anything that might penetrate the main line. This system constituted the 'Trout Line' and behind it the rest of the Support Squadron stood by to give immediate support if required.

The successful nightly establishment of the static line required accurate timing. Positions had to be taken up shortly before dusk to avoid shelling by the enemy shore batteries. Craft a few minutes late in vacating their positions at daybreak after spending the night in a state of instant readiness would also come under heavy fire.

Except for extensive minelaying in the area enemy interference between 24th June and 6th July was remarkably small. Air attacks occurred scarcely at all by day and at night were neither heavy nor pressed home. Although almost the whole of the British assault area was within range of German artillery only the Sword area was shelled to any extent and work there was consequently appreciably slowed down.

Interference from hostile naval units was restricted to occasional attacks on shipping off the coast by E-boats. These were adequately dealt with by the destroyer patrols, and enemy submarines were also kept at bay.

The greatest menace of all lay in the heavy enemy minelaying which accounted for nearly 80 per cent of the Allied shipping losses in the area during this period. It consisted in the laying of every known type of mine with settings so varied that sweeping was a matter of the greatest difficulty and danger. A new type of mine was also included actuated on a pressure principle, which did not respond to any known method of sweeping.

During the period under review, 24th June to 6th July, 143,485 officers and men, 36,631 vehicles, and 211,756 tons of stores were successfully landed at a cost in shipping casualties of twelve vessels sunk and twelve

damaged, mostly by mines. This period of comparative quiet ended suddenly on the night of 5th/6th July when the enemy using 'one-man' or 'human' torpedoes for the first time off Normandy staged a major attack on the Trout Line.

4. Human torpedo attacks on Trout Line, 6th and 8th July

Twenty-six one-man torpedoes left Trouville but two broke down on the way. Their attack on the Trout Line opened at 0300 on 6th July and lasted till 0630.¹

According to a description in the W.I.R.² of 9th June 1944 a 'human torpedo' captured after an abortive attack off Anzio on 21st April 1944, consisted of two components known as 'mother' and 'baby' secured one above the other about three inches apart. The upper or 'mother' component had its warhead replaced by an empty practice-head in which the operator sat under a perspex dome. Normally little more than the dome appeared above water and no navigational aids were fitted. The speed of the complete unit was 2.8 knots, the 'mother' alone 3.1 knots, and the mechanical endurance of the 'mother' nineteen hours. The 'baby' would run 10,000 yards at 20 knots and was fitted with a magnetic pistol which would also fire on impact. The complete unit which was designed for launching from the shore had the appearance of a rapidly devised and easily assembled weapon.

As no copy of the relevant W.I.R. had reached the Support Squadron by 6th July it had no previous knowledge of the new weapon. The attack, therefore, was something in the nature of a surprise. A typical experience from the Squadron's point of view was that of *M.L.151* which at 0300 on the 6th was moored astern of *L.C.F.21* in the static Trout Line when her attention was called by loud-hailer from the landing craft to a moving object on the starboard quarter. *M.L.151* at once dropped astern. By 0305 both she and her quarry had stopped and two minutes later a torpedo passed under her in the direction of *L.C.G.(L) 681*. She at once attempted to ram but converging fire from *L.C.G.(L) 681* and *L.C.F.21* forced her to abandon the attempt and she opened fire with her .303 Vickers gun. At 0315 the enemy submerged and the *M.L.*, covering the area with a number of reciprocal runs, dropped several 5-lb. charges before proceeding to drop similar charges over a much larger area eastward of the Trout Line.

The only British losses during the attack were the minesweepers *Magic* and *Cato* which were sunk in the Northern Defence Line off the Sword area at 0353 and 0511 respectively. Eleven enemy weapons were destroyed, and some prisoners taken.

The prisoners revealed that further attacks might be expected and it was therefore no surprise when the enemy repeated the operation two nights later. That night, 8th July, twenty-one human torpedoes started out from Houlgate at 0030 and proceeded westward along the coast to raid the anchorages. The attack opened at 0307 and continued far into the forenoon. Between the opening of the attack and 1130 the twenty-one human torpedoes were sighted no less than thirty-one times in the British assault area. Of the many enemy units which raided the Sword area between

¹ Landing Craft Support.

² Commander Kenneth Edwards, *Operation Neptune*, p. 234.

¹ Report is in M 057566/44.

² W.I.R. 222, p. 59.

0340 and 0815 at least sixteen were seen on the surface and five definitely sunk. Another nine were assessed as being possibly sunk. Many were sighted and attacked by R.A.F. and naval aircraft between 0340 and 1130, some as far afield as five miles west of La Hève. According to the German Naval Group Command West War Diary not a single 'mother' torpedo returned. All twenty-one had been lost. The Allied losses on the other hand were not unduly heavy, the minesweeper *Pylades* being sunk in the Northern Defence Line,¹ and the old Polish manned cruiser *Dragon* so badly damaged that it was considered expedient to sink her as an additional blockship in the line which formed the breakwater of the 'Gooseberry' harbour off Sword beach.²

A Germany 'baby' torpedo recovered intact on Ouistreham beach after the attack was found to be fitted with a new type of pistol.

5. Further attack on Trout Line, 3rd August³

From the experience gained in the July attacks it was anticipated that conditions of full moon and tide would render the nights of 1st and 2nd August especially favourable from the enemy's point of view for the next attacks on the Trout Line.

All was quiet on the night of 1st and conditions were so bad on the evening of the 2nd that an early attack appeared most unlikely. The weather, however, improved so rapidly that a 'Preparative Alert' was ordered from 0200.

This wise precaution was fully justified by events, for during the small hours of the 3rd the enemy delivered a determined and concentrated attack on the eastern flank of the British assault area. It differed materially from the previous raids. For the first time, explosive motor boats took part in addition to human torpedoes.

Although the actual attack came as no surprise its exact nature could hardly have been foreseen for virtually none of the details and capabilities of the German explosive motor boats were known at the time by the Allies. Gradually, however, a clear picture of their characteristics was built up from observation and from interrogation of prisoners. According to the Weekly Intelligence Report these boats were of two types and worked in groups of three—one control, or Kommando, boat and two explosive boats. Each group approached its target in single line ahead with the control boat in the van. Both types of boat were lightly built of plywood and almost identical in appearance. They were between 15 and 18 feet long and had a beam of 6 feet. Their low freeboard of no more than 2 feet permitted them to operate in calm weather only.

Each Kommando boat was manned by a coxswain and two radio controllers. The explosive boats had a crew of one man each and carried an explosive charge of at least 660lb under the pilot's seat in the stern. These charges were detonated by a spring bumper round the bows, which acted as a trigger. Some exploded on contact but others sank after hitting their target and exploded at a depth of about 16 feet.

Powered by two Ford V 8 engines the speed of the control boats was

¹ Details are in M 08247/44.

² Details are in M 08095/44.

³ Report is in M 057817/44.

27 to 30 knots, that of the explosive boats 25 to 27 knots. They normally cruised at slow speed, 6 to 10 knots, in order to avoid making a large bow wave, and had a range up to 60 miles. On approaching the target the explosive boats drew ahead and their pilots jumped overboard. Their boats were then directed on to the target or targets by wireless control. Boats which missed the target exploded automatically after an interval of about half an hour. The last action of the control boats was to pick up the men in the water and withdraw as quickly as possible.¹

The attack opened without warning at 0220 when a torpedo struck the old light cruiser *Durban* which had been scuttled to form the easternmost 'Corn cob' in the Sword area Gooseberry harbour. No report of this incident, however, was received at Admiral Rivett-Carnac's headquarters till very much later and therefore no alarm was given.

At 0251, about half an hour after the attack on the *Durban*, the 'Hunt' class destroyer *Quorn*, patrolling to the north of the Sword area, was sunk by a torpedo. Ten minutes later *L.C.G.1* and *M.L.131* engaged a human torpedo at the northern end of the Trout Line² without definite results. At 0310 the frigate *Duff* narrowly escaped being torpedoed and at 0325 the minesweeping trawler *Gairsay* was hit by a torpedo and sank.³

All these attacks were made at the extreme northern limit of the Trout Line and were limited to human torpedoes. It seemed that having failed to get through the Trout Line during the previous attempts the enemy was now endeavouring to skirt the northern end of the Line in order to gain access to the anchorage. Thus by 0330 it appeared increasingly clear that a human torpedo attack on the anchorage was imminent and 'Operation Alert, Stage I' was ordered at 0332, followed by 'Stage III' at 0341.

Nine minutes later, however, the nature of the attack underwent a complete change. At 0350 an unidentified aircraft, on being fired on by vessels in the Trout Line, dropped a red and green flare north of the Sword area, probably an enemy signal initiating the new attack, for at 0400 an explosive motor boat was sighted and promptly sunk by *L.C.G.764* in the centre of the Trout Line. This was the first appearance off Normandy of these new craft. For the next two and a quarter hours they endeavoured to break through to the anchorage in successive waves and a furious battle raged between them and the vessels of the Trout Line. Any boats which succeeded in penetrating the line were immediately dealt with by motor launches working in close support of the *L.C.F.s.* and *L.C.G.s.*⁴ Two were captured by *M.L.131* and *M.L.146* but unfortunately one blew up, and the other sank while in tow. At 0615 the battle ended when the enemy after suffering a heavy reverse retired having expended some sixteen explosive motor boats and lost two control boats for only one Trout Line vessel, *L.C.G.764*, destroyed, and even she had sunk one boat before being hit by two others. The debut of the explosive motor boats had ended in a complete fiasco.

While this fierce battle was still raging in the centre of the Trout

¹ W.I.R. 233 of 25th August 1944, p. 56. According to Commander Kenneth Edwards, *Operation Neptune*, p. 238, the charge carried by the explosive boats weighed 250 lbs., was in the bows, and the boats were not radio controlled.

² Appendix A.

³ R.O. Case 8796, p. 112.

⁴ Section 3.

Line a number of motor boats working round to the north were successfully intercepted by the anti-submarine trawler *Gateshead* and *M.L.185*, four being destroyed. Meanwhile the human torpedoes had held off during the main motor boat attack, but returned to the fray at 0610 when one was destroyed by *H.D.M.L.1049* at the northern end of the Trout Line. They continued the attack till 0730 when they withdrew eastward; not however to escape unmolested, for the hunt was at once taken up by beach patrols of 132 Fighter Squadron.

The Germans had sustained a most discouraging and costly defeat which must seriously have shaken their faith in their new weapons. In addition to expending twenty-two of the thirty-two motor boats taking part, their losses in human torpedoes were assessed at twenty-one certainties, three probables and eleven possibles. The actual losses were forty-one out of the fifty-eight human torpedoes employed. One, captured by the destroyed *Blencathra*, unfortunately exploded while being hoisted but another, recovered intact, was despatched to the United Kingdom for examination. In addition to twenty-nine Germans captured several bodies were seen in the water.

The *Quorn*, *Gairsay* and *L.C.G.764* were the only British losses. The transports *Fort Lac la Rouge* and *Samlong* were damaged off Langrune and in the Juno area respectively. It is possible, however, that they were hit by circling torpedoes.

6. German secret weapons, August

Human torpedoes and explosive motor boats were by no means the only novel weapons used by the Germans against the Trout Line and Normandy anchorages. One of the most dangerous was a very long range circling torpedo. This weapon was about eight feet long and two in diameter. Propelled by electricity at a speed of six to nine knots it left virtually no wake and was almost impossible to detect. After it had run straight a predetermined distance to the anchorage it would circle for anything up to ten hours before 'running down', when it would become a particularly lethal form of mine.

In an area not only a hunting ground for human torpedoes but also thickly strewn with mines it was seldom possible to determine the exact cause of the 'underwater explosions' which sank or damaged some six vessels in the British assault area between 7th and 11th August and five more between 12th August and 11th September.

The first, the motor transport *William Darcy*, was damaged near H.34 berth at 0530 on 7th August by an underwater explosion attributed at the time to a circling torpedo or floating mine. The next, the hospital ship *Amsterdam*, was sunk one and a half hours later in the vicinity of L 7 buoy with a heavy casualty list, 74 of the 394 persons on board being listed as missing believed drowned. Her loss was attributed to a mine. At 0900 next day, the 8th, the motor transport *Fort Vale*, whilst proceeding at slow speed one mile south of 56 H buoy, was damaged by an underwater explosion, probably a mine. Fortunately she remained afloat and was berthed in the Juno anchorage. The cruiser *Frobisher*, which had already been damaged in an air raid on 18th July, was apparently torpedoed at anchor off Courseulles at 0715 on 9th August but was able to leave for the United Kingdom at 1500 next day. Meanwhile, at 0630 that day, the

10th, the transport *Iddesleigh* has been damaged by an underwater explosion near H 20 berth and beached. The weapon which inflicted the damage was not identified at the time but may have been a very long range torpedo. The sixth casualty occurred just over twenty-four hours later at 0700 on the 11th when the seaplane carrier *Albatross* was severely damaged by an underwater explosion—probably a long range torpedo—with the loss of fifty-five lives.¹ Fortunately she remained afloat and was towed back to the United Kingdom for repairs.

Between 12th August and 11th September only five more ships were reported sunk or damaged by underwater explosions in the British assault area. The first was the bombardment control ship *Fratton* which sank in four minutes at 0540 on the morning of 18th August with the loss of thirty lives while at anchor in the Pike area. The next casualty was the S.S. *Harpagus* which was damaged by an underwater explosion, possibly a mine, near Arromanches approach channel at 1400 next day. Her after portion remained afloat and was beached one and a half miles west of the Mulberry harbour on the 21st. The third victim was the small tanker *Empire Roseburg* which was sunk on the 23rd, probably by a mine, some three miles north of Arromanches in the Gold area. There were nineteen survivors. The fourth casualty was the fleet minesweeper *Gleaner* which was damaged on the 27th just outside the Tunny area, and towed into harbour. The final victim was the anti-submarine trawler *Kingston Chrysoberyl* which was damaged by an underwater explosion whilst at anchor on the evening of 2nd September, and suffered only one minor casualty. She was the last vessel reported sunk or damaged by an underwater explosion off the beaches during the Normandy operations.

By early August several other novel German devices had been reported in the anchorage. On 5th August a number of floating booby traps and decoys, classed by Admiral Rivett-Carnac as 'curiosities', were sighted in the water. They were variously described as 'mines, cylindrical metal objects making a sound of escaping air, etc.' Some were believed to be circling torpedoes which by that time were known to exist, as a number had been found at Banville on the night of 3rd-4th August. Though most of these remarkable German devices proved to be more ingenious than deadly the majority were dangerous. Some, however, were harmless and used only as decoys. Among them were dummy torpedo domes with the head and shoulders of a man painted inside. These were apparently intended to confuse the defence and draw its fire, thus assisting the real human torpedoes to penetrate the patrol lines.

The following day, 6th August, a human torpedo was found by the anti-submarine trawler *Grimsby Town* and a suspicious object sunk by *M.L.195*. Fifteen small horizontal mines were reported floating off Juno beach at 1115. Several more floating through the Trout Line at ebb tide² were destroyed by gunfire.

It was becoming increasingly clear that these floating objects were a definite menace to the anchorage and next day, 7th August, the following special defence measures were instituted against them:

- (a) An M.L. patrol by day.
- (b) Special lookouts in all ships and craft in order to sink by rifle fire all such objects seen.

¹ Fifty missing, five dead.

² 0330, 6th August.

- (c) Special steps to clear the harbour of rubbish which could be mistaken for dangerous objects or lead to confusion when searching for them.
- (d) The supply of illuminants to as many ships and craft as possible.

These measures appear to have been successful for after mentioning on the 8th and 9th that various 'curiosities' had been dealt with, Admiral Rivett-Carnac's War Diary¹ makes no further reference to them. Meanwhile the enemy had made another abortive raid on the Trout Line.

7. Final attacks on Trout Line, 9th and 17th August

Although the first three attacks on the Trout Line had ended in heavy German defeats, the enemy, still apparently undaunted, tried again during the early hours of 9th August. The night was calm and fine with a nearly full moon. At first there was little or no enemy activity but this time the Germans failed to achieve even the smallest measure of surprise. The 'Preparative Alert' was already in force at 0230 when *M.L.195* sighted a number of explosive motor boats passing northward out of range eastward of the Trout Line.

The actual attack opened at 0305 and from then on continued with unabated fury for nearly two hours. As on the previous occasion the enemy paid dearly for his temerity, for the attack ended in the complete rout of the new German weapon. Of the twenty-eight boats which made the attack sixteen explosive boats were expended and four control boats lost without inflicting a single casualty on any vessel in the Trout Line. In fact, only one motor boat penetrated the Line and was promptly dealt with by a motor launch. Admiral Rivett-Carnac gave great credit to the defence force and in particular to the Support Squadron and its leader, Commander Sellar, for encompassing the complete destruction of the attacking force.² Never again did the enemy venture to carry out a major attack on the anchorages with explosive motor boats.

Only once again in fact did the Germans risk an attempt to break through into the British assault area. This was on 17th August and was a half-hearted affair confined to human torpedoes. The attack opened at 0530 and at 0632 *L.C.F.(1)* while weighing anchor after a night in the Trout Line, was hit by a torpedo and blew up with the loss of seventy hands. Her destruction was the enemy's only real success. During the attack two torpedoes exploded harmlessly against the hull of the *Courbet*, one of the blockships in the breakwater of No. 5 Gooseberry harbour. This old French battleship exercised an irresistible fascination over the enemy. Lying on the bottom in shallow water and flying an immense Tricolour and a big Croix de Lorraine flag she presented an entirely normal appearance. This illusion was deliberately fostered by the Support Squadron which frequently carried out bombardments from behind her under cover of smoke. The ruse met with no small measure of success for the Germans wasted many shells, torpedoes, and bombs in an endeavour to destroy her, without in any way impairing her efficiency as an effective blockship. A torpedo also struck the transport *Iddesleigh*, already aground

¹ R.O. Case 8796.

² R.O. Case 8796, pp. 121-122, and M 05872/44.

on Langrune beach after being damaged by an underwater explosion on the morning of 10th August,¹ and she became a total loss.

During this abortive attack the enemy again suffered heavy losses; no less than twenty-five of the forty-two human torpedoes employed were destroyed, including five by the R.A.F. Another was captured and brought ashore by *L.C.S.(L)251* in the face of considerable difficulty and danger after more than four hours strenuous effort. Altogether seven prisoners were taken. Never again did the Germans risk making a raid on the Trout Line. In any case little time remained, for the campaign off the Normandy beaches was rapidly approaching its end.

8. End of Seine Bay operations, September

In addition to the defensive role of protecting the anchorages, the Support Squadron was also responsible for the offensive work of bombarding the enemy positions on the eastern flank of the British assault area. Day after day and week after week it had carried out these bombardments. Though neither spectacular nor exciting they were of the utmost value to the British troops ashore, particularly to the Royal Marine Commandos in the Franceville area east of the River Orne estuary. Every day two landing craft bombarded this area in the face of heavy return fire. Other landing craft bombarded enemy positions in response to requests from troops ashore. These indirect bombardments were controlled by Forward Observation Officers. Nearly all were carried out behind smoke screens and many from behind the old French blockship *Courbet*. All these attacks were made by *L.C.G.s*. Meanwhile *L.C.S.(L)s* attacked the coast daily between Franceville and Cabourg, working close in under the enemy's guns.

So well had the Support Squadron performed its allotted tasks that under its protection men, vehicles and stores had continued to pour over the Normandy beaches into France almost without interruption ever since its inception on 28th June. By 6th July the millionth man had landed and the other figures, namely 200,518 vehicles and 723,051 tons of stores, were equally impressive. By 18th August the figures had risen to 1,898,819 men, 401,710 vehicles and 2,579,457 tons of stores. Next day the fighting ashore was marked by the closing of the Falaise 'gap' at Chambois and the encirclement of the German Seventh Army in the area. The survivors were streaming east in confusion towards the Seine and the Americans had reached the Seine at Mantes. The British had opened their attack along the Normandy coast towards Cabourg.² The monitor *Erebus* and four *L.C.G.s* were standing by but had no chance of opening fire that day as the situation ashore was too fluid to present suitable targets. On the 19th and 20th however the *Erebus* successfully bombarded enemy batteries in the Houlgate area which were holding up the advance. Great damage was being inflicted on the retiring enemy and the R.A.F. was making full use of the fine weather to destroy barges transporting enemy troops and equipment over the river. The pursuit continued all the next day, the 21st, and many prisoners were taken, especially in the Falaise 'pocket' where 'mopping up' operations were proceeding rapidly. By the 28th, a week later, the enemy had been cleared from all the area west of

¹ Section 6, p. 9.

² Plan 1.

the Seine and Allied troops were crossing the river at several points. With the opening of Ouistreham and Caen the Juno beaches were no longer essential and in view of the approach of winter it was decided to close them down.¹

At Le Havre the German garrison were still fighting desperately. Its refusal, however, to accept an ultimatum to surrender was little more than a forlorn gesture. All naval activity in the port had ceased. The enemy threat to the eastern flank virtually no longer existed and on 8th September the defence forces in the British assault area were drastically reduced by the return of all coastal forces to the United Kingdom. The Captain (Patrols) and his staff also left the area, only the *Stevenstone* and one other destroyer being retained pending the fall of Le Havre. The Support Squadron was reduced to three L.C.G.s and three L.C.S.(L)s., six M.Ls. being retained at Arromanches for use in Le Havre if required. On 10th September the *Warspite* and *Erebus* carried out a heavy long range bombardment of Le Havre in support of the Army, the *Erebus*, which was bombarding from a position off Cabourg, being credited with 30 direct hits of 130 rounds fired. She encountered no opposition. The *Warspite*, on the other hand, was firing from a more northerly position and was continually worried by the Le Havre batteries. In spite of this the results of her bombardment were considered very satisfactory. Both ships sailed for Portsmouth that evening. Meanwhile the assault on Le Havre from the landward side had been opened during the afternoon.

With the fall of Le Havre a mere matter of hours away, the eastern flank was so secure that the continued presence of the Support Squadron was no longer necessary. On 11th September, therefore, as it could not assist in the assault on Le Havre it sailed for the United Kingdom. It was destined to play a great part in the Schelde operations a month or two later.²

The end of the Normandy campaign was very near at hand, for Le Havre surrendered at 1130 next day, 12th September, its fall bringing to a close a phase in which the Royal Navy and Merchant Service had shared the Seine Bay with the Germans, much to the discomfort of the Germans.

Between the end of the assault phase when the control was transferred ashore on 24th June, and the fall of Le Havre on 12th September, 352,570 men, 152,000 vehicles and 1,410,600 tons of stores had been landed on the beaches and small ports of the British assault area alone.³ The total numbers landed in all areas since D-day, 6th June, were 2,168,728 men, 449,476 vehicles and 3,669,202 tons of stores, the two millionth man having landed on 28th August. In spite of the large enemy occupied naval port and fortress of Le Havre being less than twenty miles from the beaches only 8,260 tons of stores were lost to the Army from enemy action. During the eighty-one days since 24th June naval forces in the British assault area had fought twenty-eight engagements with German surface forces, destroying a coaster, an auxiliary and five E/R boats. They had also seriously damaged one minesweeper, two trawlers and twenty-five E/R boats.⁴ Concentrated attacks by explosive motor boats and human torpedoes on the British assault area had been driven off at a cost to the enemy of forty-two motor boats and ninety-nine human torpedoes.

¹ Juno beaches were closed officially on 7th September.

² Chapter V.

³ R.O. Case 8796, p. 153.

⁴ Chapter II.

Heavy minelaying had been countered by intensive sweeping and other measures, resulting in the explosion of 609 mines.

Approximately 240 targets had been bombarded and 6,300 rounds of varying calibre from 4.7-in. to 16-in. fired in support of the Army.

On the British side, the Support Squadron Eastern Flank losses were two L.C.G.s mined and sunk, one L.C.G. sunk by explosive motor boat and one L.C.F. torpedoed and sunk. A number of transports had also been sunk and many ships and craft damaged. The cost in Support Squadron personnel had been eight officers and fifty-seven men killed or missing, and three officers and 112 men wounded.

To the Support Squadron Admiral Rivett-Carnac signalled on 11th September in farewell:

'Your work in the British assault area in support of the Army and in defence of the anchorage has been unfailingly successful. I am very sorry to lose you but the shooting season for you here is now closed. Good-bye and good luck.'

Thus ended the campaign off the Normandy beaches. With the approach of winter the Allies' greatest need was a major cross-Channel port. Cherbourg had been captured by United States troops on 26th June, and every effort was being made to get it into full working order.

The town of Cherbourg lies at the northern extremity of the Cotentin peninsula and in 1944 had a population of 39,000. It is some 230 miles distant by rail from Paris: in normal times the journey takes only 4½ hours in spite of adverse gradients. The port of Cherbourg is divided into two main harbours. The Grande Rade, sheltered by its three breakwaters, has two entrances. The western, or Passe de l'Ouest, is used by large vessels at all states of the tide. The eastern entrance, or Passe de l'Est, being shallower, is used by coasting vessels. The roadstead is a valuable haven of refuge protected on the south by an amphitheatre of hills. In times of peace it is a port of call for transatlantic liners which can anchor there at all times.

Within the Grande Rade is the Petite Rade, or inner roadstead, whose 500 metres wide entrance lies between the Jetée des Flamands to the east and Digue du Homet to the west. In the north-west corner are the quays of Homet. The maximum depth obtainable is about 40 feet and transatlantic liners can anchor at all states of the tide except low-water springs.

Within the Petite Rade lie four separate harbours. To the west is the naval base consisting of an avant-port and the Bassins Charles X and Napoléon III. To the south is the deep-water Darse Transatlantique with the avant-port and basin of the old commercial harbour nearby to the south-west.

The Quai de France on the west side of the Darse Transatlantique, alongside which stands the modern Gare Maritime, provides two berths of approximately 40 feet depth and two of approximately 36 feet depth alongside its 620 metres of quay. In 1944 the incomplected Quai de Normandie on the opposite side of the dock provided two berths of approximately 30 feet depth alongside 300 metres of quay. The dock between the two moles is 228 metres wide.

The old commercial port consists of an avant-port leading to the Bassin à Flot. It is a relatively shallow tidal harbour whose 630 metres of quays provide four berths at a draught of only 10 feet. Under normal conditions the whole port is well equipped with lifting gear. The commercial harbours are equipped with only one dry dock, 80 metres long, but the naval base possesses no less than nine, seven in the basins and two outside, one of which is the largest in the port having a length of 250 metres and a width of 36 metres. There is also a small floating dock with a lifting capacity of 350 tons.

By the end of the third week in June this splendid port was the immediate objective of the U.S. VII Corps.

10. Bombardment and capture of Cherbourg

When the Allies had established their first bridgehead in Normandy and made it reasonably secure two immediate necessities confronted them. One was the capture of Cherbourg. The other was the building up of their forces to a point where they could take the offensive and liberate the whole of Western Europe.

Fig. 1

The taking of Cherbourg was a solely American undertaking and they set about it in a thoroughly workmanlike manner. By 18th June they had fought their way across the Cotentin peninsula. Then in the face of moderate German resistance the U.S. VII Corps advanced steadily up the peninsula on a three-divisional front towards Cherbourg, moving through Montebourg, which changed hands several times, Valognes, and Bricquebec on the way.¹ By 22nd June the outskirts of Cherbourg were reached and the task of reducing the fortress began. Although the landward attack was preceded by heavy air raids on enemy positions many points of resistance remained intact and the main progress made was on the flanks. Next day the airfield at Maupertuis, five miles east of Cherbourg, was secured together with commanding ground overlooking the town. Even before the war Cherbourg was very heavily defended and the Germans had substantially increased its defences. It was anticipated, therefore, that its actual capture would be a matter of some difficulty and General Omar Bradley, U.S. Army, asked for a naval bombardment of its defences to synchronize with his final assault by land. A naval task force known as C.T.F. 129 comprising three American battleships, *Texas*, *Arkansas*, *Nevada*, the American cruisers *Tuscaloosa* and *Quincy*, and the British cruisers *Glasgow* and *Enterprise*, with screening destroyers and two minesweeping flotillas, was therefore formed under the command of Rear-Admiral M. L. Deyo, U.S.N., and assembled at Portland between 21st and 22nd June. Its task was to neutralise the many powerful shore batteries and German artillery while the VII Corps were storming the inner defences of the fortress. During the naval bombardment which was carried out on 25th June, a total of just under 3,000 shells was fired by the Task Force including 376 of heavy calibre² from the battleships. Haze, dust and smoke rendered observation of the target very difficult, but though it was not found possible to silence all the batteries the operation achieved a large measure of success, most of the missions requested by the Army being successfully completed. Under cover of the naval bombardment, artillery fire and air support the VII Corps broke into Cherbourg, capturing two of the main forts and reaching the area of the arsenal. Thus sea-power played a highly important part in the capture of Cherbourg.

Next day, the 26th, the control of Cherbourg passed virtually into American hands when the German garrison commander, General von Schlieben, and the local flag officer, Admiral Walter Hennecke, surrendered in the newly captured fortress of St. Sauveur.³ These officers however were unable or unwilling to order a general cease fire and sharp fighting continued for a few hours at some points. That night only one major enemy stronghold remained in the city itself, the naval arsenal. This structure, partially protected by a moat,³ was high walled and mounted anti-tank and anti-aircraft guns on its parapets.

The end was near at hand. About 1000 on 27th June the arsenal capitulated, bringing to a close organised resistance in the city. During the next two days resistance from outlying forts in the harbour also came to an end, but forces in the north-west corner of the peninsula were not finally overcome till 1st July. Thus ended an operation which had cost the

¹ Plan 1.

² 12- or 14-in.

³ Fig. 1, p. 14.

enemy heavy casualties including the loss of 39,000 prisoners.¹ American VII Corps casualties were 2,811 killed, 13,564 wounded, 5,665 missing, and 79 captured, a total of 22,119.²

The capture of Cherbourg, the first major French port to fall into Allied hands, was an event of the greatest importance. There can be a vast difference, however, between the taking of a port and operating it to its full capacity.

11. Clearance of Cherbourg harbour

Fortunately for the Allies the enemy had made no attempt to block the Cherbourg harbour entrances. There was a distinct danger, however, that they had heavily mined them in the hope that Allied vessels would be sunk and become involuntary blockships. At first, therefore, only small craft entered the harbour, drifting in with engines stopped in order to avoid any danger from acoustic mines.

First to enter was a British motor launch. Just inside the harbour entrance her sweep fouled an obstruction which however on being brought to the surface proved to be nothing more formidable than the wreck of a crashed Heinkel bomber. Inside the harbour the Germans had followed a sound strategical plan. They had destroyed the port in order to deny its use to the Allies, the garrison having resisted till the last possible moment to enable this to be successfully accomplished. Great ingenuity had been displayed in an endeavour to put the port out of action for the longest possible time. Ships were scuttled alongside jetties and in dock entrances with cranes capsized on top of them. Piles of twisted steel lay under water against the jetties preventing even the smallest craft going alongside. Thus Commodore T. McKenzie, the Principal Salvage Officer on the staff of Admiral Sir Bertram Ramsay, the Allied Naval Commander-in-Chief, and Commodore W. A. Sullivan, U.S.N., the Chief of United States Naval Salvage, on flying to Cherbourg immediately after the liberation of the port, found a scene of utter devastation, quays demolished, cranes and elevators blown into the water, dozens of railway wagons in the harbour and some sixty-seven ships and craft from 12,000 tons downwards sunk alongside the demolished quays or near the harbour entrances.

The task of clearing these obstructions, though formidable, was a straightforward operation. From past experience however it appeared more than probable that the enemy had fouled the tangled wreckage with explosive booby traps in the hope of killing or injuring Allied salvage experts. The possibility that trip wires had been laid on the harbour bed connected with heavy explosive charges whose detonation would destroy any unwary diver, could not be ignored.

On 28th June, Rear-Admiral A. G. Kirk, U.S.N., the Naval Commander, Western Task Force, reported that a hasty survey of Cherbourg indicated that the docks would be out of use for some time but that the Bassin à Flot and Avant-Port du Commerce would soon be in operation. The arsenal area was badly damaged, but landing craft could unload on the Nouvelle Plage. He added that the entire anchorage area had been heavily mined both by controlled mines and mines laid by aircraft.³ In short, the Allies would have to contend with a comprehensive system of

¹ Field-Marshal Viscount Montgomery, *Normandy to the Baltic*, pp. 77-78.

² *Utah Beach to Cherbourg*, p. 210. For details see Appendix B.

³ T.S.D. 5258/44.

mines and hidden obstructions possibly planned by experts who had learned their trade in the many ports to which the enemy had clung so tenaciously.

The responsibility of restoring these blocked and damaged ports was divided equally between the Army and Navy. On the military Port Repair organisation rested the responsibility of restoring landward facilities and organisations, the Navy's responsibility being limited to everything that floated and to moorings and berths alongside jetties.

In normal circumstances many months of hard and hazardous work would have been required to get these devastated ports back into full working order, but by 1944 wide experience had been gained in the science of clearing them and adapting them within a short period of time to handle an even greater weight of traffic than that for which they had been originally designed.

At Naples for example the enemy not only blocked the port before abandoning it in 1943 but also wrecked the installations providing power, light and water. Yet the shambles to which Naples harbour had been reduced rapidly became a workable port, whose capacity rose day by day till it far outstripped its peace-time limits. The experience gained at Naples stood the Allies in good stead at Cherbourg. At Naples port clearance and salvage gear had been in short supply, but by June 1944 the deficiency was remedied and many new implements including a plentiful supply of underwater welding and oxyacetylene cutting plants were available. At Cherbourg every moment was of vital importance as the Allied Supreme Command most urgently desired the full use of the port, and the six British and three American salvage vessels, and twelve lifting 'camels' allocated for the work entered the harbour as soon as the approach channel had been swept. Although the port was in the American sector and destined chiefly for the landing of reinforcements and supplies for the United States Army the work of clearing its harbour and restoring its facilities was a joint Anglo-American undertaking. It was a gigantic task and the Americans accomplished apparent miracles in the difficult work of raising and disposing of wrecks and clearing jetties and quays.

The search and clearance of the harbour basins was undertaken by British personnel under the orders of Lieut.-Commander E. G. Irving, Commanding Officer of the surveying ship *Franklin*. They were parties¹ of 'human minesweepers'; all young men, physically tough, who before volunteering for these hazardous duties had little or no diving experience. They possessed an intimate knowledge of the many types of enemy mine likely to be encountered and had been trained to render them safe underwater, working solely by touch. They had also been instructed in the art of avoiding trip wires and similar traps set by the enemy to catch the unwary. That high courage and devotion to duty was common to all of them goes almost without saying.

To co-operate with the orthodox minesweepers, which operated during the high water period and swept up many types of mines, the diving parties worked during the low water period from three hours after high water to three hours before high water. They searched the beds of the Bassin à Flot, the Avant-Port du Commerce, and the entrance channel. They searched, too, a sixty-foot wide area below low water mark facing the Nouvelle Plage, and Quai du Homet and Digue du Homet for their entire

¹ Known as 'P' parties.

length, and the three basins in the Arsenal, the Avant-Port, the Bassin Napoléon III and the Bassin Charles X.¹ The fact that they encountered comparatively few mines or underwater traps at Cherbourg in no way detracted from the immense labour of the search nor the skill and endurance required to carry it out.²

The work of clearing and rehabilitating Cherbourg proceeded apace. No unnecessary chances were taken, yet before long, ships were able to use the great harbour. By early September the port was handling half its normal capacity and soon no less than 12,000 tons a day were being handled. Within a short time Cherbourg, like Naples and other key ports captured by the Allies, was handling a far greater tonnage of shipping and cargoes than it had ever known in the most prosperous days of peace. Day after day and week after week the work went on without a break. Thus the great port of Cherbourg became of the utmost value to the Allies. It is perhaps hardly too much to say that its quick fall and rapid restoration represented nothing less than a major German defeat.

12. Break-out from St. Lô, 25th July

The immediate effect of the German defeat at Cherbourg was in no way lessened by the quick Allied capture of other French key ports, among them the great naval base of Brest. While the U.S. VII Corps was completing the capture of Cherbourg during the last week in June³ the remainder of the American First and Third Armies were building up and regrouping near the base of the Cotentin peninsula on a line roughly parallel to and eight miles north of the road joining Periers to St. Lô.⁴ By the beginning of July the Normandy battlefield was assuming the layout desired for launching the break-out from the American flank. The overriding factor was speed, and the Allies had every inducement to take all possible advantage of the situation before greater enemy strength could be brought against them. Yet a whole series of unavoidable and irritating delays were encountered. The basic difficulty was to secure a suitable starting position. To obtain this it was necessary to go as far south as the general line of the Periers-St. Lô road. In the face of stubborn enemy resistance however only slow progress could be made over terrain ideally suited to defence. These difficulties were greatly enhanced by bad weather which seriously restricted air support. The attack southwards opened on 3rd July with a thrust by the U.S. VIII Corps towards La Haye du Puits which was captured late on the afternoon of the 8th. Meanwhile the U.S. VII Corps had attacked south-west of Carentan. Further east the U.S. XIX Corps had captured St. Jean-de-Daye on the 7th and continued to advance to within four miles of St. Lô.

Between 10th and 18th July the Americans continued their advance slowly but steadily southwards and by the 18th were in possession of St. Lô and the ground, west of the River Vire, required for mounting the major break-out operation to the south. The Allies were on the very threshold of great events and all was ready for the break-out from the bridgehead.

¹ Fig. 1, p. 14.

² M 010625/44.

³ Section 10 above.

⁴ Plans 1 and 2 and Fig. 2, p. 20

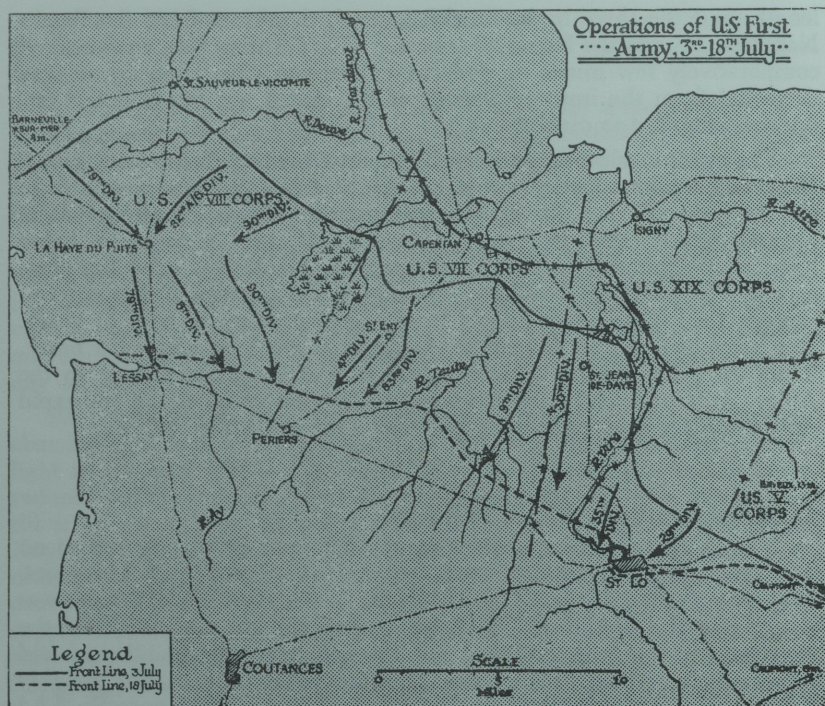


Fig. 2

As it was clearly essential that once started the break-out should maintain its momentum it was of the utmost importance that a clean break should be made through the enemy defences and a corridor opened up through which armoured forces could pour into the open country beyond. It was therefore decided to seek heavy bomber assistance, but day after day bad weather seriously hampered flying. When at last, on 24th July, two thousand aircraft arrived over the target it was only to find heavy cloud and thick mist greatly restricting visibility and nearly all were forced to return without dropping their bombs. The weather however improved so rapidly that next day, 25th July, it was found possible to open the attack with an intensive air bombardment. Its weight apparently stunned and confused the enemy for though the Germans offered stubborn resistance on the western flank, their resistance in the penetration area at St. Lô was light and considerable advances were made. Within two days they were withdrawing all along the line and Lessay and Periers were occupied on the 27th.¹ The town of Coutances was captured on the afternoon of the 28th and by 4th August the American drive, after advancing twenty-five miles due south, was swinging eastwards according to plan. Meanwhile the U.S. VIII Corps had turned westward into Brittany. It rapidly became clear that except in the immediate neighbourhood of the ports no properly organised enemy resistance existed anywhere in the Brittany peninsula. The VIII Corps was therefore able to make rapid progress

¹ Plan 2 and Fig. 2.

and by mid-August was engaged in heavy fighting at the very outskirts of St. Malo, Lorient and Brest.¹

13. Bombardment and capture of Brest

The great naval base of Brest² is magnificently situated on the almost land-locked Rade de Brest. The town, which has a population of 79,000, stands at the mouth of the River Penfeld on the northern side of the Rade. The port of Brest consists of the commercial port and two private basins together with the naval base, comprising the port militaire in the River Penfeld, bordered by the various workshops of the arsenal; the quays of Lannion, west of the river mouth, and the Rade Abri. The Rade Abri is sheltered by three breakwaters: the 600 metres long Jetée Ouest, the 2,200 metres long Jetée Sud, and the 900 metres long Jetée Est. The Jetée Est is joined at its northern end to the Digue du Sud which protects the commercial port. In the commercial port there are fifteen berths totalling 1,720 metres of quays.

The port militaire occupies the River Penfeld for about two miles from its mouth. At the Lannion quays there is enough water to allow capital ships to go alongside. It was here and in the neighbouring dry docks that the *Scharnhorst* and *Gneisenau* lay for so long in 1941.

It was confidently anticipated that Brest, with its fine deep-water harbour, would make an excellent supply port for the American armies. True it was far away to the west but, for the most part, the railway eastwards had miraculously escaped destruction. The U-boats with their new Schnorkel device still represented a very real danger to ships from the United States entering the English Channel on the way to Cherbourg, and the presence of enemy submarines at Brest, where bomb-proof U-boat pens rendered them immune from air attack, made an early capture of the port all the more desirable. So on 25th August the fortress of Brest was assailed with a heavy weight of air bombing and artillery to coincide with the opening of the assault by the U.S. VIII Corps which was soon, at General Patton's request, to be detached from the Third Army³ and was to join Lieut.-General W. H. Simpson's newly formed American Ninth Army. As at Cherbourg, sea power played no small part; the battleship *Warspite* coming close inshore during the afternoon successfully bombarded the town and forts with at least fifty rounds of 15-inch ammunition at ranges up to 30,000 yards. The attack provided no easy conquest for with grim determination the enemy held out stubbornly more than three weeks and even after being driven from Brest itself on 18th September continued to defy the Allies from the Crozon peninsula across the harbour. The surrender of the enemy garrison next day effectively ended Brest as an enemy submarine base. The rapid advance made by the Allied armies eastwards however had greatly reduced the value of Brest as a supply port. This was more than fortunate for little but piles of rubble and gutted buildings remained of the town. Huge craters gaped in the jetties and quays of the commercial docks. The dockyard basin was strewn with sunken ships and the wreckage of a high swing bridge effectively blocked the entrance to the River Penfeld on which the town of Brest stands. In short the port of Brest, like the port of Cherbourg, had been so badly smashed, and encumbered with wrecks, that many weeks of arduous labour would have

¹ Fig. 4, p. 24.

² Fig. 3, p. 22.

³ General George Patton, Jr., *War as I Knew It*, p. 121.

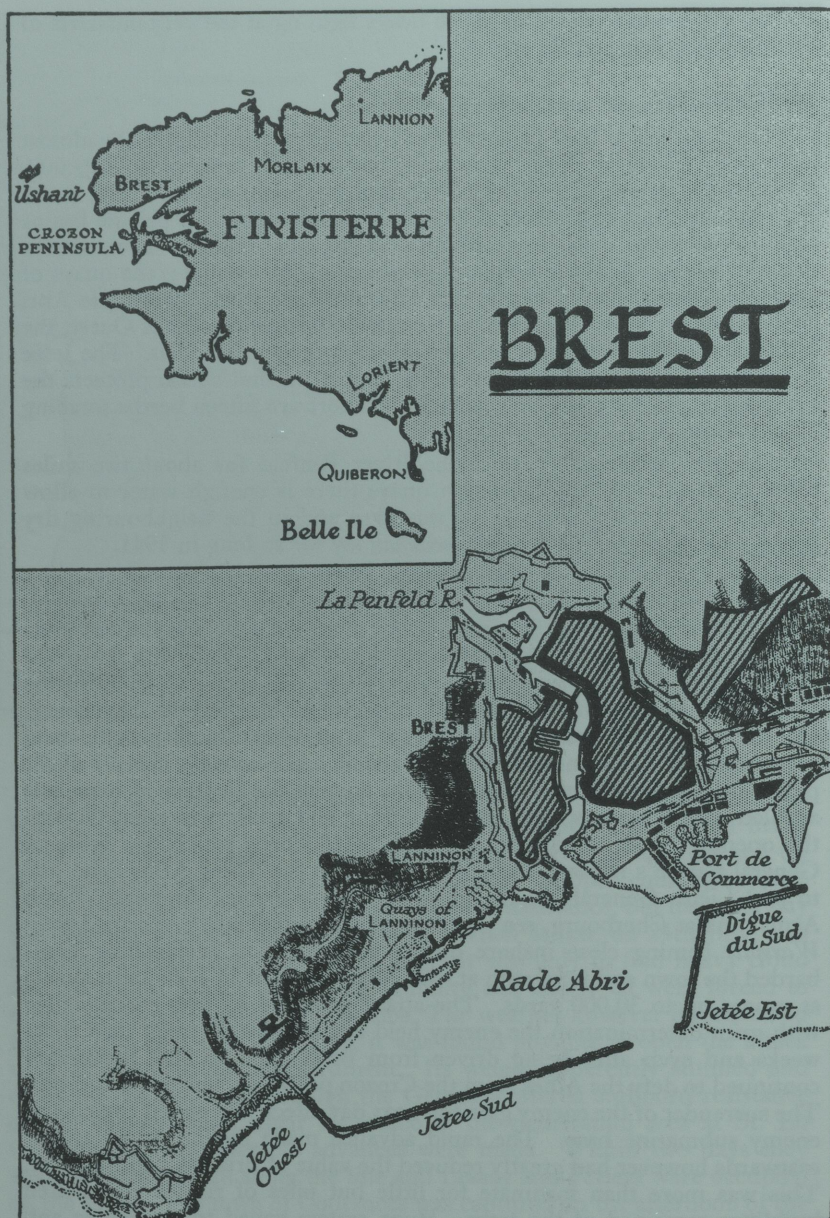


Fig. 3

been required to turn it back into an efficient base or useful supply port.

For the same reasons neither Lorient nor St. Nazaire was considered to be of any immediate value to the Allies, and they were allowed to remain in enemy hands till the end of the war in Europe. Thus no sooner had Brest fallen than the roads leading from it were alive with Allied convoys hastening eastwards carrying the invading forces back into the fighting line many hundreds of miles nearer to the frontiers of the Third German Reich.

THE BATTLE OF NORMANDY

14. U.S. First and Third Armies drive east

Soon after the VIII Corps of the U.S. Third Army, General G. S. Patton, Jr., swung westward into Brittany at the beginning of August the remainder of the Third Army swung eastwards according to plan.¹ By mid-August it had cleared the River Loire to Angers and had captured Chartres and Orleans. By the end of the month, while the Germans were still contained at Brest, the Third Army had by-passed Paris and reached Reims, Verdun and Commercy.

As early as 5th September Third Army elements were in Metz and Pont-à-Mousson and only ten days later elements of the XII and XX Corps were along the Moselle, and, in some places, across the river. Meanwhile on 11th September the U.S. Seventh Army, which had landed successfully in Southern France² on 15th August, had made contact with the Third Army north of Dijon. A fortnight later the advance of the Third Army came to a temporary halt in order to conform with advances in other sectors. It had cleared the enemy from the west bank of the Moselle north of Metz and had gained substantial bridgeheads east of the river, south of Metz.

Further north the U.S. First Army, Lieut.-General Omar Bradley, like the Third, had made excellent progress. On 21st August, after wheeling to the north and taking part in the battle of the Falaise pocket,³ it crossed the Seine in force at Mantes, north-west of Paris. Next day French forces of the interior, after four days' fierce fighting, forced the Germans in Paris to seek an armistice. Fighting was renewed on the 23rd but the U.S. V Corps led by the 2nd French Armoured Division entered the city two days later and Paris was liberated. After its fall the advance of the U.S. First Army continued rapidly and by the end of the month the liberation of France was not only assured but was in a fair way towards completion. Meanwhile the British Second Army, General Sir Bernard Montgomery, had made a parallel drive eastward across northern France.

15. British Second Army operations, 10th July - 4th August

The triumphs of the American armies owed much to the hard fighting of the British. General Montgomery's broad policy had been to draw the main enemy forces into battle on the eastern flank, thus ensuring the success of the American break-out from St. Lô.⁴

In view of the General's aim of holding the main force while the Americans staged their break-out on the western flank two developments which took place during the first week in July were considered very disquieting. The first, the identification of the 2nd S.S. Panzer Division in the American sector round St. Eny,⁵ south of Carentan, and the second, the relief of three panzer divisions by fresh infantry divisions in the eastern sectors, were both clear indications of the enemy's determination to strengthen his

¹ Section 13 above, Plan 2 and Fig. 4, p. 24.

² *Battle Summary No. 43, Operation Dragoon.*

³ Section 16 below.

⁴ Section 12 above.

⁵ Fig. 2, p. 20.

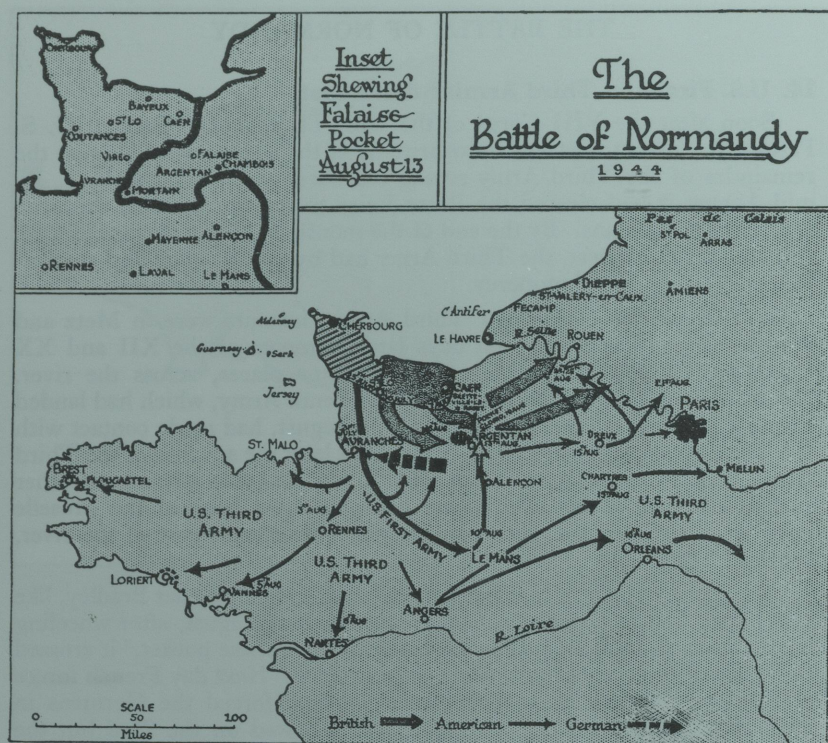


Fig. 4

forces in the west in spite of the Second Army's endeavours to prevent it. It was therefore considered vital that these measures should be countered without delay. The violence of the enemy's resistance at Caen, which was captured by the British I Corps on 9th July after two days' fierce fighting, amply demonstrated the measure of his determination to prevent further progress in that sector. It was therefore abundantly clear that the key to retaining strong enemy forces on the eastern flank was the establishment of equally strong British forces in the area south-east of Caen.

The immediate problem, however, was to prevent the transfer of enemy reserves to the American sector. Speed was the paramount factor and it was decided to begin with operations further west, between the Odon and the Orne, because they could be started more quickly than a major attack in the Caen sector east of the Orne. General Montgomery therefore ordered the Second Army to operate immediately in strength west of the Orne, with its left flank on the river. The objective was the general line Thury Harcourt-Mont Pincon-Le Beny Bocage.¹

Thus the break-out of the British Second Army developed into separate drives, west and east of the River Orne. The first opened with a series of minor thrusts by the XII and XXX Corps between 10th and 18th July southwards towards Hottot, Noyers, and Evrecy. On 18th July the VIII Corps entered the struggle. It was a battle for position, designed to bring

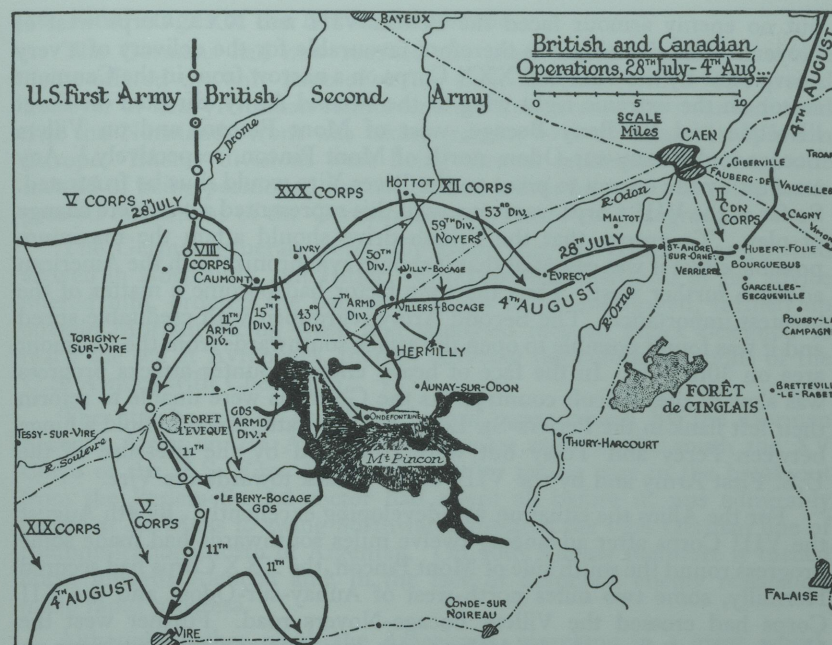
¹ Fig. 5.

Fig. 5

into play the full effect on the enemy of the second drive, a direct and powerful threat to Falaise. During the next few days, while the U.S. forces were awaiting favourable weather for their break-out, the XII Corps carried out a number of limited operations immediately west of the River Orne during which Maltot was captured and which provoked a strong counter-attack. The Germans were making desperate efforts to hold the bridgehead¹ but there was no long-term plan behind their dogged defence. The hopes, held in Berlin, of one day being able to drive the Allies back into the sea were certainly not shared by the local commanders many of whom were pressing for a tactical withdrawal to the Seine.

While these limited XII and XXX Corps operations were in progress west of the Orne preparations were being made at all possible speed for the major thrust east of the Orne by the VIII Corps which was to cross the river and establish armoured divisions in the Hubert-Folie, Verrières, Vimont and Garcelles areas. The II Canadian Corps was also to cross the river and was to clear the Caen suburb of Faubourg-de-Vaucelles and the village of Giberville. These operations were designed to open the south-eastern exits from Caen. Progress by the II Canadian Corps east of the Orne at first was slow but by 20th July the British line ran eastwards from the Orne near St. André-sur-Orne to Bourguebus, Cagny and within three miles of Troarn.¹

Then, on 25th July, the Americans staged their great break-out from St. Lô. At that time the enemy had very powerful armoured forces facing the British immediately west of the Orne between Noyers and the river,

¹ Fig. 5.

but no enemy armour faced the British VIII and XXX Corps west of Noyers. The situation was therefore favourable for the delivery of a very heavy blow by the VIII and XXX Corps on a narrow front in the Caumont sector on the extreme right wing of the Second Army, directed on Forêt l'Évêque and Le Beny Bocage, west of Mont Pincon, and on Villers Bocage and Aunay-sur-Odon, north of Mont Pincon, respectively.¹ Any attempt by the enemy to pivot on the River Vire would thus be frustrated. So far as the VIII Corps was concerned this represented a complete change of plan. To ensure that the British drive should attain the maximum possible effect it was essential that it should synchronize with the American advance further west. Thus the time factor had become a matter of the greatest importance. The Second Army regrouped with creditable speed and it was found possible to open the attack southwards from the Caumont area on 30th July. In the face of heavy enemy counter-attacks progress was slow in the difficult country. As the Germans were unable to reform their left flank in the Periers-St. Lô sector, they attempted to hold a hinge between Percy and Tessy but were frustrated by the pressure of the U.S. First Army and by the VIII Corps' attack towards the Vire.

For the Allies the situation was developing excellently. By 4th August the VIII Corps after advancing twelve miles southwards had made some progress round the south side of Mont Pincon, the XXX Corps had secured Hermilly, some two miles north-west of Aunay-sur-Odon, and the XII Corps had crossed the Villers Bocage-Noyers road. Further west the U.S. break-out from the bridgehead was complete and the first hinge on which the enemy had attempted to pivot had been destroyed.

The time had now come for the delivery of the second or main British attack, east of the Orne. The plan provided for a drive to the south-east in the direction of Falaise by the First Canadian Army in order to cut the line of communications of the enemy forces facing the British Second Army. Briefly the broad Allied strategy was the swinging of the right flank towards Paris in order to force the enemy back against the Seine.

During 5th and 6th August the Canadians were busy on final preparations for their attack. Then on 6th August General Montgomery issued orders for the advance to the Seine. By the night of 7th all was ready for the opening of the Canadian drive supported by heavy bombers.

At 2300 the heavy bomber operation began and half an hour later the Canadian Armoured Brigade moved forward. It was quickly evident that the Germans were endeavouring to pivot on the Caen area but the smashing of the enemy's hinge south of Caen was destined to prove no easy matter.

By midday on the 8th the first phase of the attack was successfully completed, but when, following an attack by strong formations of Flying Fortresses directed by a tragic error partly against the Canadians themselves, the Canadian armour moved south again at 1355, it encountered a very strong lay-back position astride the high ground from about Brayen-Cinglais, through Bretteville-le-Rabet to Poussy-la-Campagne. The first step towards pinning the Germans against the Seine had been successfully accomplished but before the whole plan could be completed the enemy had made a desperate and costly attempt to cut the American line of communications at the base of the Cotentin peninsula.

¹ Plan 2 and Fig. 5.

16. Final stages of the Normandy battle

The Germans had now reached the stage where withdrawal to the Seine offered the only hope of saving their Seventh Army. The arrival however of heavy German reinforcements from across the river indicated that the Normandy front was taking priority over all others in Western Europe. Enemy divisions were being thrown recklessly into the battle instead of being positioned further back as a firm base on which the hard-pressed formations of the German Seventh Army could regroup.

The German generals were fully aware that the critical moment had arrived in Normandy, but Hitler,¹ with complete disregard of the advice offered him, ordered the panzer divisions to be disengaged, formed up outside Mortain facing west, and launched into an attack designed to reach the sea at Avranches, thereby severing the communications of the U.S. Armies with Cherbourg.

The attack, one of appalling hazard, was opened by the German Seventh Army on 7th August. Fifty miles away to the south the XV Corps of the U.S. First Army, which after taking part in the break-out from the Periers-St. Lô sector had swept all before it, was admirably placed at Le Mans to swing northwards towards the vital German line of communications north of Argentan. On 10th August therefore it turned north towards Alençon and, in the face of desperate enemy resistance, made rapid progress.

Although further north the Americans, marching in a great wheel, had much further to go to set the trap than the British, and though the British and Canadians were still facing strongly prepared defences, the German Seventh Army was rapidly encircled and within three days the bridgehead had assumed the form of a definite pocket stretching from Falaise to Mortain.² While strenuous efforts were being made to close its exits between Argentan and Falaise, British and American forces pressed in from all sides, bent on annihilating the enemy. As the circle closed it appeared that the Seventh Army would be completely trapped if only the gap between Argentan and Falaise could be firmly sealed. With the Allied forces attacking from the perimeter of a great half circle towards a common centre it was virtually impossible, however, to achieve the hour by hour co-operation which might have resulted in the complete annihilation of the enemy. The only way of preventing disastrous clashes between the British and American armies was to halt the Americans on a prescribed line even at the cost of allowing some Germans to escape. The battle was fought out with unabated fury. Fortunately from the point of view of the Allies, the weather was ideal for air operations, and the tremendous power of the Allied air forces, particularly of the rocket-firing Typhoons, was brought against the enemy columns, undermining the morale of the German tank crews. Although the Germans failed to do more than recapture Mortain they fought grimly on for several days. The American counter-measures, however, were swift and efficient, and the result of the battle was never for a moment in doubt.

For four days fierce fighting raged round Mortain. The Germans could stand no more and on 14th August, in order to meet the growing threat to their flanks, began to withdraw their armour regardless of their infantry. Rapidly they lost all semblance of cohesion. Then, on 19th

¹ Appendix C.

² Fig. 6, p. 28.

August, the final blow fell. Although in face of complete disaster the enemy fought desperately to hold open the mouth of the rapidly closing pocket, that day it was finally sealed off by the Allies when the V Corps of the U.S. First Army, which had taken over from the XV Corps in the Argentan area, linked up at Chambois with the Polish Armoured Division from the north. The battle of the Falaise pocket was nearly over. Lanes, highways and fields were so choked with wrecked equipment and with the rotting bodies of men and animals that passage through the area was extremely difficult. The Allies had won one of the most decisive victories of the whole war ; only mopping up remained to be done.

This virtually marked the end of the Normandy campaign, for little enemy resistance remained and the British were able to complete their plan by advancing rapidly to the Seine. In spite of everything, however, many Germans managed to cross the river but because every bridge between Paris and the sea had been destroyed by the Allied air forces the amount of equipment lost by the enemy was staggering.

The immediate tasks now confronting the Allied armies were the capture of Le Havre and Dieppe, the destruction of the enemy in north-east France, the clearance of the Pas de Calais with its 'V' bomb sites, the capture of airfields in Belgium and the opening of the great port of Antwerp. The ultimate aim was the isolation of the Ruhr.

The Second Army was therefore ordered to cross the Seine with all possible speed and to advance to the Arras-Amiens-St. Pol area.¹ The First Canadian Army was to advance along the coastal belt as far north as Bruges. Once over the river British, Polish and Canadian armour went forward across country without let or hindrance and the period immediately following the crossing of the Seine witnessed the most rapid advance yet made by the British Armies. Meanwhile the 49th Division of the I Canadian Corps had swung into the Le Havre peninsula with orders to destroy the enemy and seize the port.

¹ Fig. 8, p. 38.

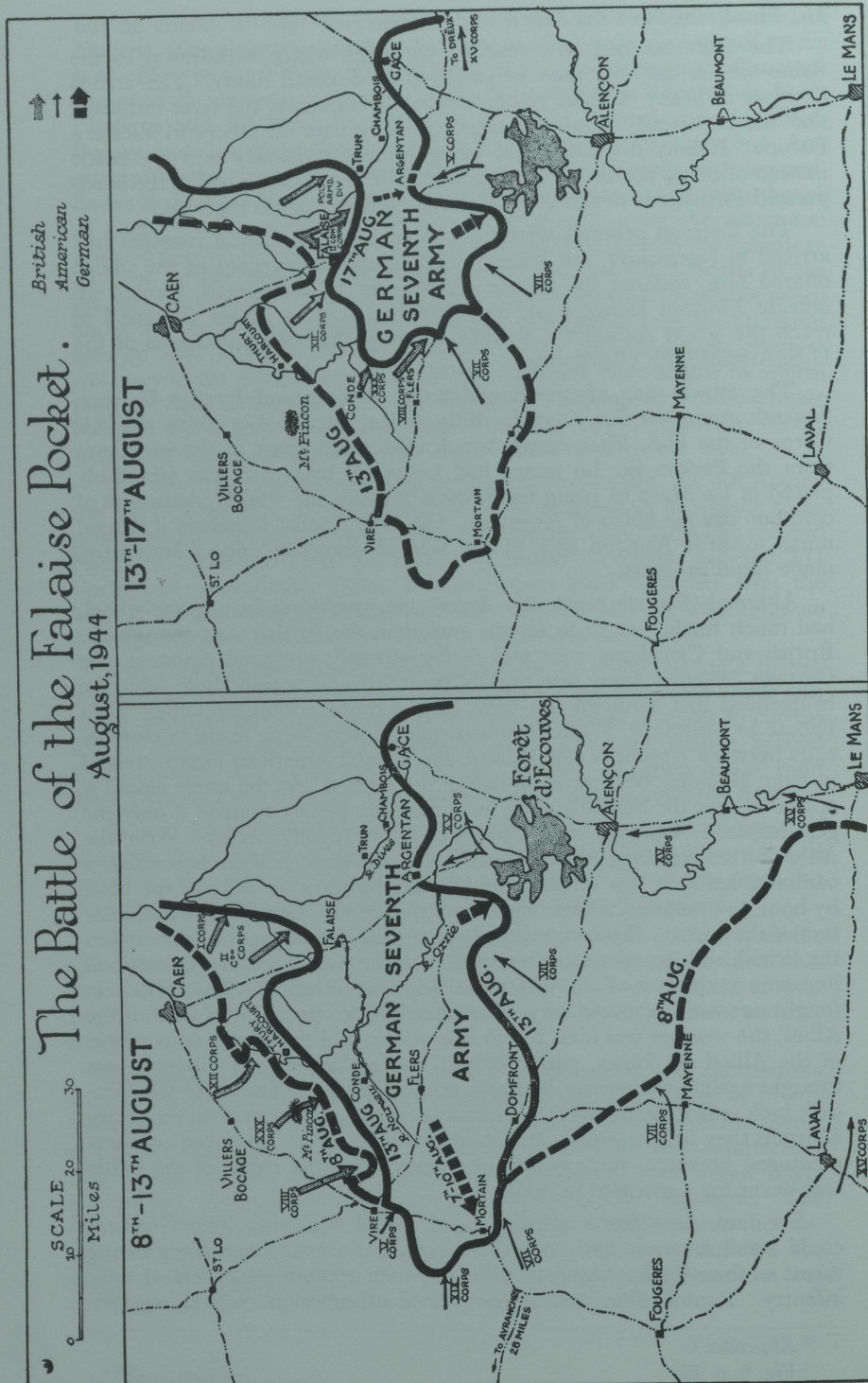


Fig. 6

ADVANCE TO THE SCHELDE

and

BATTLE OF ARNHEM

17. Importance of Le Havre

Although Le Havre was not urgently required as a supply port, its early capture was a matter of the greatest importance to the Allies since it gave the Germans a strategic advantage on the eastern flank of the Allied naval assault area,¹ which, as was to be expected, they endeavoured to exploit to their fullest advantage. The heavy gun batteries at Le Havre had a most definite nuisance value, but the E-boats based there were a greater menace, effectively dealt with only by the vigilance and courage of the British and Americans who brought them to frequent action. Le Havre, moreover, covered the Normandy coast between the Seine and Orne¹ whence the Germans launched their human torpedoes and explosive motor boats against the Trout Line and anchorages.

Towards the end of the third week in August it became abundantly clear that exceptionally heavy traffic was on the move close inshore between Le Havre and St. Valéry-en-Caux. Contrary, however, to all reasonable expectations this unwonted activity was by no means confined to an attempted evacuation of Le Havre. The Germans were, in fact, busily reinforcing the garrison in the forlorn hope of prolonging its siege.

British light coastal craft supported by Hunt-class destroyers worked regularly off the French coast between Cape de la Hève and St. Valéry-en-Caux. Whenever the enemy displayed unwonted activity these patrols were doubled in strength. Thus on 23rd August when the military situation indicated that the evacuation of Le Havre was due to start, the night patrols off Cape d'Antifer and Fécamp were not only doubled, but were also reinforced by the addition of two Hunt-class destroyers, the *Melbreak* and *Talybont*. The *Melbreak* patrolled with the frigate *Retalick* and the *Talybont* with the frigate *Thornborough*. Between 23rd and 30th August the patrols fought a number of engagements and inflicted heavy losses on the enemy.

18. Coastal Force actions, Le Havre-St. Valéry-en-Caux, 23rd-30th August²

As all these engagements were fought by small, fast moving craft in almost complete darkness it is hardly surprising that all the contemporary Allied claims cannot be substantiated. Owing to the capture of the German Naval Archives by the Allies in 1945 it is now possible to compare the Allied³ and German accounts of the actions and obtain an accurate picture of the actual casualties inflicted on the enemy. The first engagement took place at 0013 on 24th August when an eastward-bound enemy convoy from Le Havre to Dieppe, comprising the destroyer *V716*, one submarine chaser, four armed trawlers, and two R-boats towing two

others, was intercepted west of Fécamp. The result was inconclusive for though the *Talybont* opened fire the British motor torpedo-boats were driven off by shore batteries before being able to join the action. Greater success however attended the efforts of another British patrol comprising *M.T.Bs.* 205, 208 and 212, which having worked round inshore of the same convoy, off Fécamp, claims to have torpedoed one of the enemy. The *Melbreak*, working with the torpedo-boats, engaged the enemy from seaward and reports sinking one enemy vessel and damaging another. The claims were too optimistic for the actual enemy casualties were the destroyer *V716* heavily damaged and two R-boats slightly damaged. At 0448 the convoy was attacked by Allied aircraft four miles off Dieppe and *R219* was hit by two bombs, and sank.¹

Next night, 24th-25th August, there were large movements of enemy forces from Le Havre and a number of engagements. The first was at 2300 when a patrol of three U.S. P.T. boats² reports having engaged a fairly large eastward bound enemy convoy off Cape d'Antifer with inconclusive results. Their claim to have severely damaged one of the escorting E-boats half an hour later has not been confirmed from German sources. Shortly after 0100 a patrol comprising *M.T.Bs.* 252, 254, 256 and 257, attacked another eastward bound convoy of fifteen ships off Cape d'Antifer with six torpedoes and sank the minesweeper *M3857*.³ About this time P.T. boats unsuccessfully engaged an E-boat in a running fight nine miles east of Cape d'Antifer. The *Talybont* and *Retalick* report that twenty minutes later they set on fire two more E-boats of the same convoy and probably damaged a third. One was *S91* which was so heavily hit that she was scuttled. The three surviving E-boats reached Dieppe safely at 0307.

The next incident took place when *M.T.Bs.* 452, 447 and 453 approached within 900 yards of two enemy units off Cape d'Antifer before being driven off by heavy shore batteries at extremely short range. They also report attacking two R-boats, setting one on fire and silencing the other, but the incident is not mentioned in the German reports. At 0250 two more motor torpedo-boats, *M.T.Bs.* 209 and 210, claim to have attacked a group of enemy vessels lying stopped inshore east of Fécamp, but came under heavy fire from the shore batteries. At 0400 they again attacked and once more came under heavy shore fire before losing contact with the convoy off St. Valéry-en-Caux. At 0545, reinforced by *M.T.B.* 205, they attacked six enemy A.F. barges off Fécamp and sank one of them, *A.F.103*.⁴ Thus ended a night which had witnessed no less than nine engagements with the enemy and had resulted in the loss of three enemy vessels.

The Allied coastal patrols inflicted further heavy losses upon the enemy next night, 25th-26th August. At 0150 *M.T.Bs.* 450, 481 and 482 attacked a coastal convoy, comprising six A.F.-boats⁵ bound from Dieppe to Le Havre, very close inshore off Fécamp, and though heavily counter-attacked by shore batteries succeeded in hitting *A.F.109* with two shells. At 0200 two E-boats joined the convoy. The Fighting French destroyer *La Combattante* then came into action, while the destroyer *Thornborough* diverted the attention of the shore batteries, and at 0255 hit *A.F.97* and

¹ Plan 1.² Fig. 8, p. 38.³ M 09955/44.¹ PG/84133 and 33413.² U.S. equivalent to M.T.B.³ PG/72884.⁴ PG/83308.⁵ Artillery Ferry-barges.

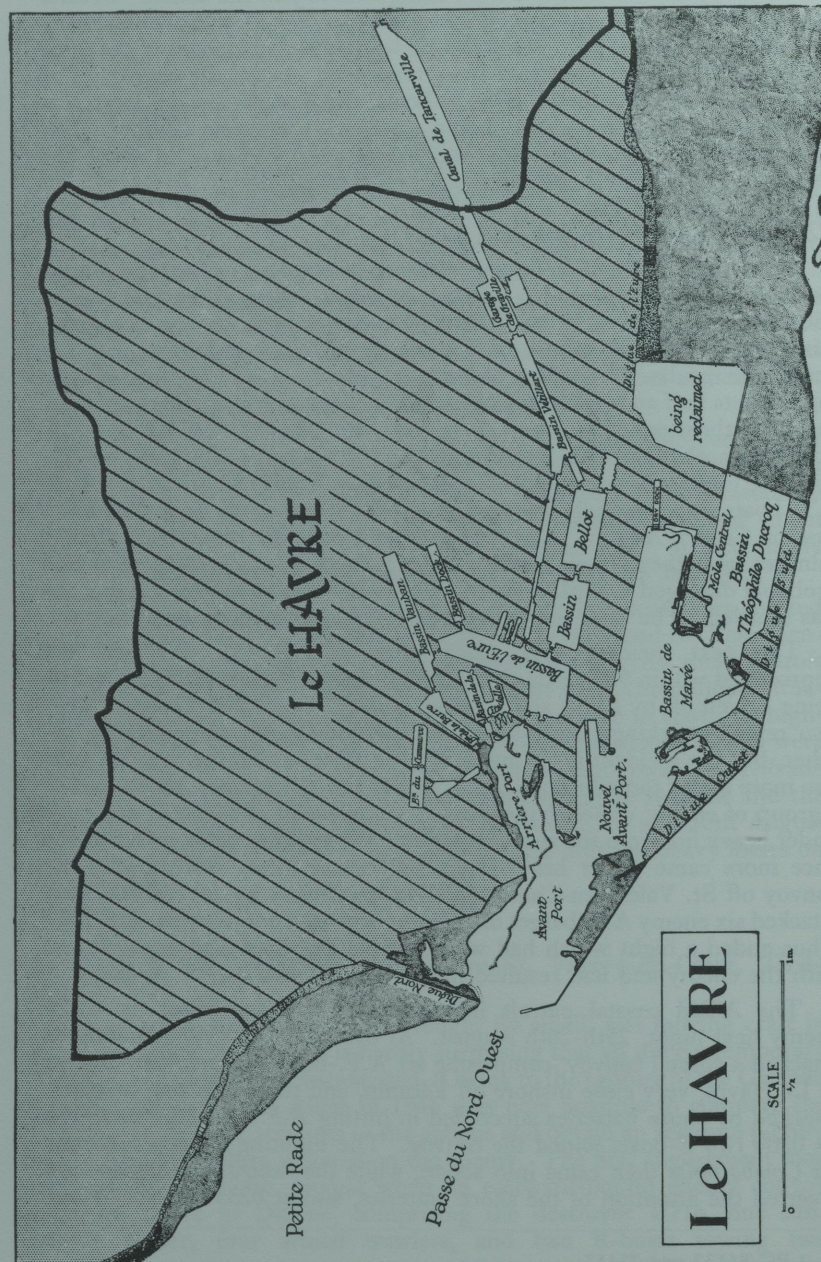


Fig. 7

The efforts of the Allied patrols were crowned with yet another welcome success the following night when during the early hours of the 27th an enemy convoy comprising five A.F.-boats, one tug, and two R-boats proceeding from Dieppe to Fécamp was successfully attacked north of Fécamp by *M.T.Bs.* 208 and 210 and lost one barge, *A.F.* 108, which was sunk by a torpedo. The attack was then taken up by the destroyer *Middleton* and the U.S. *P.Ts.* 511, 514 and 520, and another enemy barge, *A.F.* 96, was destroyed. Two further attacks, however, were unsuccessful, for the Allied torpedoes exploded harmlessly against rocks inshore.

With unabated vigour the Allied patrols returned to the fray a few hours later when an east-bound enemy convoy comprising two submarine chasers escorted by seven R-boats, was intercepted close inshore off Cape d'Antifer by the *La Combattante* and *M.T.Bs.* 447, 450 and 482 shortly before midnight on the 27th and one of the chasers, *U.ŷ.1433*, was sunk and the other chaser, *U.ŷ.1431*, damaged, and one of the R-boats, *R.231*, heavily damaged.² At 0236 the convoy was attacked off Fécamp by *M.T.Bs.* 693, 695 and 692 and three more of the R-boats, *R.233*, *R.235* and *R.236*, were damaged. Three British torpedoes exploded harmlessly against the Fécamp mole and about 0320 the surviving enemy vessels entered Fécamp harbour.

The enemy was rapidly becoming demoralised, for this appears to have been the last attempt to withdraw German personnel from Le Havre. The end in fact was at hand. Enemy losses were out of all proportion to the advantages gained and it is hardly surprising that on the 29th August the Germans decided to withdraw their coastal flotillas from Le Havre. So Le Havre was abandoned to its fate and no further attempt made to reinforce it,³ but its beleaguered garrison hung grimly on till 12th September when the great port finally fell into the hands of the Allies.

19. Capture and clearance of Le Havre⁴

The town of Le Havre, with its population of 164,000, lies at the entrance of the Seine estuary. The port, which ranks with Rouen among the leading ports of France, consists of a series of dock basins excavated in the broad belt of silt which extends along the north shore. In order to maintain it as a deep-water port continuous dredging is necessary. Shortly before the war the Passe du Nord Ouest originally only about 10 feet deep, was dredged to a depth of 35½ feet to enable the great French liner *Normandie*⁵ to enter easily at all states of the tide. To admit the *Normandie* it was also necessary to widen the harbour entrance between breakwaters to 820 feet.

¹ PG/83310 and 71720.

² PG/73517.

³ M 09955/44.

⁴ Fig. 7.

⁵ 83,423 tons.

Immediately inside the entrance is the avant-port, beyond which is the arrière-port leading eastwards to the wet docks which communicate with it and with each other by dock gates, locks, and passages. South-eastwards of the avant-port, through the Nouvel Avant-Port, lies the Bassin Theophile-Ducroq which can accommodate the largest vessels afloat. The Bassin de l'Eure lies immediately to the eastward of the arrière-port. A series of small and narrow basins leading from the Bassin de l'Eure form an entrance to the Tancarville Canal, which connects the Bassin de l'Eure with the Seine at Tancarville and forms an important link with Rouen, the fifth port of France, some seventy miles further upstream.

When the Canadians entered Le Havre on 12th September they found it in a state of complete chaos. Much of the lower town, which had been subjected to heavy Allied shelling and bombing, lay in ruins.

Shortly before noon the commander of the German garrison surrendered and though fierce fighting was still raging in the town the preliminary work of searching the harbour basins and quay sides for mines and demolition charges was put in hand without delay. Within three days the Passe du Nord Ouest had been swept and Le Havre was open for ships up to 2,500 tons. Three days later the port was declared clear of mines with the exception of a few one ton demolition charges, fortunately unexploded, which could be hoisted on to the quays and rendered harmless without difficulty. One hundred and sixty-five wrecks, wrecked bridges and other obstructions, however, still blocked the waterways and for some time the port was of limited value for the landing of supplies, but by a stroke of irony soon provided a very valuable base for the Allied coastal forces which had done such magnificent work against the E-boats previously based there.

Meanwhile at the beginning of September an important change had been made in the system of command of the Allied Armies ashore.

20. Change in the system of command ashore, 1st September

Ever since D-day General Montgomery had been the Allied Military C.-in-C. in the field with operational control over the British and U.S. Armies under the supreme orders of General Eisenhower. Following the great German defeat at Falaise General Eisenhower decided to take over the direct control of the land battle. On 1st September General Montgomery was promoted Field-Marshal, and that day the Twelfth United States Army Group passed out of his control.

The new Field-Marshal however was strongly of opinion that unity of command in the field should be maintained. So strong, indeed, were his views on the matter that he offered if necessary to serve under General Omar Bradley. General Eisenhower could not agree. The idea of having an army group commander was to assure day by day direction in a specified portion of the battle front to a degree impossible to a supreme commander. Although it was not possible for the supreme commander to give day-by-day and hour-by-hour supervision to any portion of the field, he was the only person with authority to assign principal objectives to major formations. He was also the only one with power to allot strength to the various commands in accordance with their missions. For these reasons General Eisenhower considered that no one man could assume day-by-day direction with respect to his own portion of the line and at the same time exercise logical control over any other portion. His decision was loyally accepted.

In different form the question was raised again at a later stage of the campaign but the decision remained the same.

Meanwhile south-eastern England had been subjected to a heavy bombardment by many hundreds of highly destructive missiles launched from the Pas de Calais.

21. First Flying Bomb campaign, 13th June-5th September

For more than twelve months the Allies had been fully aware that the Germans were developing certain secret weapons and every effort had been made to overcome the new threat.

The development of the new weapons had been seriously delayed by the R.A.F. raid on the German experimental station in the Baltic. It was not till 7th December 1943 that the threat of their employment became serious enough to warrant official warnings being passed to the C.-in-C. Anti-Aircraft Command. The estimated scale of attack was two hundred missiles an hour directed against London, the Solent and Bristol. It was known that the new weapons were small expendable pilotless aircraft intended for long range bombardment and plans were at once made to meet the threat. London was to be defended by a thousand heavy anti-aircraft guns, with a belt of searchlights between them and the coast to assist night fighters and another of barrage balloons between them and the capital. A similar plan was arranged for Bristol, but little could be done to protect the Solent.

Between mid-December 1943 and the end of May 1944 launching sites for the new weapons detected in the Pas de Calais were systematically bombed during twenty-four raids by the R.A.F. and American Army Air Force. Under these constant attacks the threat receded and, with the ever-increasing demands for the protection of the invasion ports, the plans for the protection of London referred to above were at first abandoned and then revived in a very modified form. Had the enemy begun his flying bomb attacks before, or even at the time of, the Normandy invasion the strain on the Allied resources would have been extremely serious, but by the time the flying bomb campaign opened it was clear no serious scale of attacks on the invasion ports was to be expected.

The flying bomb, called by the Germans V.1,¹ proved to be a small midwing monoplane with single fin and rudder, the rear portion of the fuselage being surmounted by a crude form of jet propulsion unit. The overall length of the missile was just over 25 feet and the wing span 16 feet. The weight of the war head and the blast effect was approximately that of a one ton bomb. The flying bombs had a range of at least 125 miles at a speed of about 350 miles an hour and flew at heights varying from 1,000 to 4,000 feet on predetermined courses. They terminated their flights by means of settings in their mechanisms.

The first flying bombs appeared early on the morning of 13th June when twenty-seven crossed the English coast. Some were reported over Kent and Sussex and a few came down in the London area. It was at first believed that this attack was no more than a test and no special measures were taken, but the flying bomb campaign began in real earnest only two nights later and the modified plan for the defence of London was put into operation.

¹ V for *Vergeltungswaffe* (reprisal weapon).